



NUCLEAR REGULATORY COMMISSION

10 CFR Part 52

[NRC-2017-0090]

RIN 3150-AK04

Advanced Boiling Water Reactor (ABWR) Design Certification Renewal

AGENCY: Nuclear Regulatory Commission.

ACTION: Proposed rule and environmental assessment.

SUMMARY: The U.S. Nuclear Regulatory Commission (NRC) is proposing to amend its regulations to renew the U.S. Advanced Boiling Water Reactor standard design certification. Applicants or licensees intending to construct and operate a U.S. Advanced Boiling Water Reactor standard design may do so by referencing this design certification rule. The applicant for the renewal of the U.S. Advanced Boiling Water Reactor standard design certification is General Electric-Hitachi Nuclear Energy Americas, LLC. The NRC invites public comment on this proposed rule and environmental assessment.

DATES: Submit comments by **[INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE *FEDERAL REGISTER*]**. Comments received after this date will be considered if it is practical to do so, but the NRC is able to ensure consideration only for comments received on or before this date.

ADDRESSES: You may submit comments by any of the following methods (unless this document describes a different method for submitting comments on a specific subject):

- **Federal Rulemaking Web Site:** Go to <https://www.regulations.gov> and search for Docket ID NRC-2017-0090. Address questions about NRC dockets to Dawn Forder; telephone: 301-415-3407; e-mail: Dawn.Forder@nrc.gov. For technical

questions contact the individuals listed in the FOR FURTHER INFORMATION CONTACT section of this document.

- **E-mail comments to:** Rulemaking.Comments@nrc.gov. If you do not receive an automatic e-mail reply confirming receipt, then contact us at 301-415-1677.

For additional direction on obtaining information and submitting comments, see “Obtaining Information and Submitting Comments” in the SUPPLEMENTARY INFORMATION section of this document.

FOR FURTHER INFORMATION CONTACT: Dennis Andrukat, Office of Nuclear Material Safety and Safeguards, telephone: 301-415-3561, e-mail: Dennis.Andrukat@nrc.gov, or James Shea, Office of Nuclear Reactor Regulation, telephone: 301-415-1388, e-mail: James.Shea@nrc.gov. Both are staff of the U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001.

SUPPLEMENTARY INFORMATION:

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I. Obtaining Information and Submitting Comments

A. Obtaining Information.

Please refer to Docket ID NRC-2017-0090 when contacting the NRC about the availability of information for this action. You may obtain publicly available information related to this action by any of the following methods:

- **Federal Rulemaking Web Site:** Go to <https://www.regulations.gov> and search for Docket ID NRC-2017-0090.

- **NRC's Agencywide Documents Access and Management System**

(ADAMS): You may obtain publicly-available documents online in the ADAMS Public Documents collection at <https://www.nrc.gov/reading-rm/adams.html>. To begin the search, select "[Begin Web-based ADAMS Search](#)." For problems with ADAMS, please contact the NRC's Public Document Room (PDR) reference staff at 1-800-397-4209, at 301-415-4737, or by e-mail to PDR.Resource@nrc.gov. For the convenience of the reader, instructions about obtaining materials referenced in this document are provided in the Availability of Documents section.

- **Attention:** The [Public Document Room \(PDR\)](#), where you may examine and order copies of public documents is currently closed. You may submit your request to the PDR via e-mail at PDR.Resource@nrc.gov or call 1-800-397-4209 between 8:00 a.m. and 4:00 p.m. (EST), Monday through Friday, except Federal holidays.

- **Attention:** The Technical Library, which is located at Two White Flint North, 11545 Rockville Pike, Rockville, Maryland 20852, is open by appointment only. Interested parties may make appointments to examine documents by contacting the NRC Technical Library by e-mail at Library.Resource@nrc.gov between 8:00 a.m. and 4:00 p.m. (EST), Monday through Friday, except Federal holidays.

B. Submitting Comments.

The NRC encourages electronic comment submission through the **Federal Rulemaking Web Site** (<https://www.regulations.gov>). Please include Docket ID NRC-2017-0090 in your comment submission.

The NRC cautions you not to include identifying or contact information that you do not want to be publicly disclosed in your comment submission. The NRC will post all comment submissions at <https://www.regulations.gov> as well as enter the comment submissions into ADAMS. The NRC does not routinely edit comment submissions to remove identifying or contact information.

If you are requesting or aggregating comments from other persons for submission to the NRC, then you should inform those persons not to include identifying

or contact information that they do not want to be publicly disclosed in their comment submission. Your request should state that the NRC does not routinely edit comment submissions to remove such information before making the comment submissions available to the public or entering the comment into ADAMS.

II. Rulemaking Procedure

Because the NRC anticipates that this action will be non-controversial, the NRC is publishing this proposed rule concurrently with a direct final rule in the Rules and Regulations section of this issue of the *Federal Register*. The direct final rule will become effective on **[INSERT DATE 90 DAYS AFTER DATE OF PUBLICATION IN THE *FEDERAL REGISTER*]**. However, if the NRC receives significant adverse comments on this proposed rule or environment assessment by **[INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE *FEDERAL REGISTER*]**, then the NRC will publish a document that withdraws the direct final rule. If the direct final rule is withdrawn, the NRC would address the comments received in response to these proposed revisions in any subsequent final rule. Absent significant modifications to the proposed revisions requiring republication, the NRC does not intend to initiate a second comment period on this action in the event the direct final rule is withdrawn.

A significant adverse comment is a comment in which the commenter explains why the rule (including the environmental assessment) would be inappropriate, including challenges to the rule's underlying premise or approach, or would be ineffective or unacceptable without a change. A comment is adverse and significant if it meets the following criteria:

(1) The comment opposes the rule and provides a reason sufficient to require a substantive response in a notice-and-comment process. For example, a substantive response is required when—

(a) The comment causes the NRC to reevaluate (or reconsider) its position or

conduct additional analysis;

(b) The comment raises an issue serious enough to warrant a substantive response to clarify or complete the record; or

(c) The comment raises a relevant issue that was not previously addressed or considered by the NRC.

(2) The comment proposes a change or an addition to the rule, and it is apparent that the rule would be ineffective or unacceptable without incorporation of the change or addition.

(3) The comment causes the NRC to make a change (other than editorial) to the rule.

For additional information, including procedural information, see the direct final rule published in the Rules and Regulations section of this issue of the *Federal Register*.

III. Background

The General Electric Company (GE) submitted the U.S. Advanced Boiling Water Reactor (U.S. ABWR) standard design certification initial application on September 29, 1987. The NRC initially docketed the application (Docket No. STN 50-605) on February 22, 1988, but later changed the docket number to 52-001 on March 20, 1992 (57 FR 9749) to reflect GE's request [or the applicant's request] to review the application under part 52, "Licenses, Certifications, and Approvals for Nuclear Power Plants," of title 10 of the Code of Federal Regulations (10 CFR). The NRC documented its review in NUREG-1503, "Final Safety Evaluation Report Related to the Certification of the Advanced Boiling Water Reactor Design," in July 1994 (ADAMS Accession No. ML080670592), and NUREG-1503, Supplement 1, "Final Safety Evaluation Report Related to the Certification of the Advanced Boiling Water Reactor Design," in May 1997 (ADAMS Accession No. ML080710134). The NRC issued the agency's first design certification (DC) rule, for the U.S. ABWR, in the *Federal Register* (62 FR 25800),

effective June 11, 1997. In 2007, GE and Hitachi Nuclear Energy formed an alliance, and General Electric-Hitachi Nuclear Energy Americas, LLC, (GEH) became the entity retaining the U.S. ABWR design from GE.

On December 7, 2010, GEH submitted its application to renew the certification of the U.S. ABWR standard design to the NRC under subpart B, “Standard design certifications,” to 10 CFR part 52. The NRC published a notice of receipt of the application in the *Federal Register* on January 27, 2011 (76 FR 4948). On February 18, 2011, the NRC formally accepted the design certification renewal application for docketing (76 FR 9612). The preapplication information submitted before the NRC formally accepted the application for docketing can be found in ADAMS under Docket No. PROJ0774.

Subpart B to 10 CFR part 52 presents the process for obtaining standard design certifications. Under § 52.57(a), an application for DC renewal must contain all information necessary to bring the information and data contained in the previous application up to date. Updates under § 52.57(a) include clarifications consistent with the original understanding of the design information, and changes to correct known errors, typographical errors, or defects, as defined in § 21.3. For the NRC to issue a rule granting the DC renewal under § 52.59(a), the design, either as originally certified or as modified during the rulemaking on renewal, must comply with (1) the Atomic Energy Act of 1954, as amended (AEA), (2) the NRC regulations applicable and in effect at the time the certification was issued, and (3) the applicable requirements of § 50.150, “Aircraft impact assessment.”¹

A DC renewal applicant may propose to amend the design under § 52.59(c). An amendment is an applicant-proposed change that is not an update under § 52.57(a) or a change to meet the renewal standards in § 52.59(a). Amendments must comply with the

¹ The requirement for modifications in DC renewals to address § 50.150 was added to § 52.59(a) by a rule published June 12, 2009, requiring applicants for new nuclear power reactors to perform a design-specific assessment of the effects of the impact of a large, commercial aircraft (74 FR 28111). This requirement is applicable to the U.S. ABWR DC renewal because this is its first renewal and the U.S. ABWR DC was in effect on July 13, 2009.

AEA and the NRC's regulations applicable and in effect at the time of renewal rather than the § 52.29(a) standards. If the amendment request entails such an extensive change to the certified design that an essentially new standard design is being proposed, a new DC application must be submitted.

In addition, NRC regulations at § 52.59(b) state that the Commission may impose other requirements if it determines any of the following:

1. They are necessary for adequate protection to public health and safety or common defense and security;
2. They are necessary for compliance with the NRC's regulations and orders applicable and in effect at the time the certification was issued; or
3. There is a substantial increase in overall protection of the public health and safety or the common defense and security to be derived from the new requirements, and the direct and indirect costs of implementing those requirements are justified in view of this increased protection.

The final U.S. ABWR DC rule for the original certification, Supplementary Information, Section II.A.1, "Finality," stated that the NRC "does not plan or expect to be able to conduct a de novo review of the entire design if a certification renewal application is filed under § 52.59[.]" "Criteria for renewal" (62 FR 25800, 25805). Instead, the NRC stated that it expects that the focus of the review would be on changes to the design that are proposed by the applicant and insights from relevant operating experience with the certified design or other designs, or other material new information arising after the NRC staff's review of the design certification. Furthermore, the standards in § 52.59(b) control the imposition of new requirements during the review of applications for renewal. When GEH applied to renew the U.S. ABWR DC, the NRC affirmed this position, reviewed only those aspects of the design that were amended or modified, and determined whether operating experience or other material new information indicated that additional changes to the design were necessary. The staff reviewed GEH's proposed amendments and modifications to the design; the staff did not impose changes under 10 CFR 52.59(b).

On June 12, 2009, the NRC published a rule requiring applicants for new nuclear power reactors to perform a design-specific assessment of the effects of the impact of a large, commercial aircraft (74 FR 28111). By letter dated December 7, 2010, GEH submitted its application to renew the U.S. ABWR DC to the NRC, which included Revision 5 to the design control document. This revision includes a containment re-analysis amendment and the necessary changes to meet the requirements of § 50.150, "Aircraft impact assessment." Revision 5 of the DCD also describes the aircraft impact assessment results and identifies and incorporates design features and functional capabilities to show, with reduced use of operator actions, that the reactor core remains cooled and spent fuel pool integrity is maintained.

In a letter dated July 20, 2012, the NRC identified proposed changes that were regulatory improvements or that could meet the criteria in § 52.59(b). The NRC suggested that GEH consider the recommendations contained in SECY-12-0025, "Proposed Orders and Requests for Information in Response to Lessons Learned from Japan's March 11, 2011, Great Tohoku Earthquake and Tsunami," dated February 17, 2012, addressing Recommendations 4.2, 7.1, and 9.3 from SECY-11-0093, "Near-Term Report and Recommendations for Agency Actions Following the Events in Japan," enclosure, "Recommendations for Enhancing Reactor Safety in the 21st Century; The Near-Term Task Force Review of Insights from the Fukushima Dai-Ichi Accident report," dated July 12, 2011. Subsequently, during the Mitigation of Beyond-Design-Basis Events rulemaking that resulted in § 50.155, "Mitigation of beyond-design-basis events," the Commission determined that it would be inappropriate to impose mitigation strategies requirements on DCs.²

After the NRC's July 20, 2012, letter to GEH, the NRC issued several requests

² In the Mitigation of Beyond-Design-Basis Events proposed rule regulatory analysis, dated October 2015, the Commission explained that its proposal to make the Mitigation of Beyond-Design-Basis Events rule inapplicable to existing DCs, which included the U.S. ABWR, was based on concluding that "[t]he issues that may be resolved in a DC and accorded issue finality may not include operational matters, such as the elements of the [Mitigation of Beyond-Design-Basis Events] proposed rule." However, as discussed in SECY-19-0066, "Staff Review of NuScale Power's Mitigation Strategy for Beyond-Design-Basis External Events," the design certification can provide for finality under 10 CFR 52.63 and Section VI of appendix A to 10 CFR part 52 for the adequacy of the structures, systems, and components to perform their mitigation strategies functions, as analyzed in the final safety analysis report.

for additional information to identify additional items or clarify the items communicated in the 2012 letter. By letter dated February 19, 2016, GEH submitted DCD, Revision 6, to incorporate changes to the U.S. ABWR DCD made in response to NRC's 2012 letter and to the NRC's requests for additional information. In addition, this revision transmitted corrections of typographical errors that were identified during document development, and other required formatting changes. These corrections represent non-substantive changes that are editorial in nature. The NRC reviewed these typographical changes and determined that the changes do not affect the NRC's findings in the final safety evaluation report for original certification and are acceptable. On December 20, 2019, the applicant submitted DCD, Revision 7, that incorporated the remaining changes provided in earlier responses to requests for additional information. The NRC reviewed DCD, Revision 7, against the changes proposed in responses to requests for additional information and noted that two short paragraphs were missing from Chapter 5. On March 16, 2020, the applicant resubmitted DCD, Revision 7, Chapter 5, including the previously missing paragraphs. To ensure that the public can reference a single ADAMS package for this document, the NRC copied the original DCD, Revision 7, ADAMS package, and replaced Chapter 5 with the corrected file. This corrected ADAMS package is the collection of DCD, Revision 7, chapters that the NRC has reviewed (ADAMS Accession No. ML20093K254). The NRC's review is documented in Supplement 2 to NUREG-1503, "Final Safety Evaluation Report Related to the Certification of the Advanced Boiling Water Reactor Design" (ADAMS Accession No. ML20301A886). This proposed rule would certify Revision 7 of the U.S. ABWR DCD as provided in ADAMS Accession No. ML20093K254.

Separately, Toshiba Corporation Energy Systems and Solutions Company (Toshiba) sought renewal of the U.S. ABWR DC, incorporating the Toshiba-specific aircraft impact assessment amendment used in the STPNOC DCD. On June 9, 2016, Toshiba withdrew its renewal application for the U.S. ABWR DC. The Toshiba ABWR was to incorporate the Toshiba-specific aircraft impact assessment amendment of the

U.S. ABWR design certification, identified in the current appendix A to 10 CFR part 52 as the South Texas Project Nuclear Operating Company (STPNOC) DCD. The original U.S. ABWR design certification has expired, along with its STPNOC DCD aircraft impact assessment amendment, and Toshiba has withdrawn its renewal U.S. ABWR DC application; therefore, Toshiba's STPNOC DCD with its Toshiba-specific aircraft impact assessment amendment is not considered to be in timely renewal as described in § 52.57(b).

On June 22, 2018, the only U.S. ABWR combined license (COL) holder, Nuclear Innovation North America LLC, requested NRC approval to withdraw the COLs for South Texas Project, Units 3 and 4. The NRC approved the termination of these COLs on July 12, 2018. Since the only COLs that referenced the Toshiba STPNOC DCD has been terminated, and no other license or application referencing the U.S. ABWR DC exists, the Toshiba STPNOC DCD no longer meets the requirement for validity beyond the date of expiration under § 52.55(b). Finally, GEH has not requested to renew the STPNOC amendment. For all these reasons, the NRC is not retaining the original DCD or the STPNOC DCD option in Appendix A to 10 CFR part 52. Instead, the NRC is proposing to replace appendix A to 10 CFR part 52 with a rule certifying the renewed GEH U.S. ABWR design.

IV. Voluntary Consensus Standards

The National Technology Transfer and Advancement Act of 1995, Pub. L. 104-113, requires that Federal agencies use technical standards that are developed or adopted by voluntary consensus standards bodies unless the use of such a standard is inconsistent with applicable law or otherwise impractical. In this proposed rule, the NRC intends to certify the renewal for the U.S. ABWR standard design for use in nuclear power plant licensing under 10 CFR part 50, "Domestic licensing of production and utilization facilities," or part 52. Design certifications are not generic rulemakings

establishing a generally applicable standard with which all 10 CFR parts 50 and 52 nuclear power plant licensees must comply. Design certifications are Commission approvals of specific nuclear power plant designs by rulemaking. Furthermore, design certifications are initiated by an applicant for rulemaking, rather than by the NRC. This action does not constitute the establishment of a standard that contains generally applicable requirements.

V. Plain Writing

The Plain Writing Act of 2010 (Pub. L. 111-274) requires Federal agencies to write documents in a clear, concise, and well-organized manner that also follows other best practices appropriate to the subject or field and the intended audience. The NRC has written this document to be consistent with the Plain Writing Act as well as the Presidential Memorandum, "Plain Language in Government Writing," published June 10, 1998 (63 FR 31883). The NRC requests comment on the proposed rule with respect to clarity and effectiveness of the language used.

VI. Environmental Assessment and Final Finding of No Significant Impact

The NRC has determined under the National Environmental Policy Act of 1969, as amended (NEPA), and the NRC's regulations in subpart A of 10 CFR part 51, that this proposed rule, if issued, would not be a major Federal action significantly affecting the quality of the human environment and, therefore, an environmental impact statement is not required. The Commission has determined in § 51.32 that there is no significant environmental impact associated with the issuance of the standard design certification or its amendment, as applicable. This reflects the fact that a DC rule does not authorize the siting, construction, or operation of a facility referencing any particular design, but only codifies a standard design certification in a rule (the U.S. ABWR DC renewal in this

case). The NRC will evaluate the environmental impacts and issue an environmental impact statement as appropriate under NEPA as part of the application for the construction and operation of a facility referencing a DC rule. Comments on the environmental assessment will be limited to the consideration of severe accident mitigation design alternatives as required by § 51.30(d).

VII. Paperwork Reduction Act Statement

This proposed rule does not contain any new or amended collections of information subject to the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.). Existing collections of information were approved by the Office of Management and Budget, control number 3150-0151.

Public Protection Notification

The NRC may not conduct or sponsor, and a person is not required to respond to, a collection of information unless the document requesting or requiring the collection displays a currently valid OMB control number.

VIII. Availability of Documents

The documents identified in the following table are available to interested persons through one or more of the following methods, as indicated.

Documents Related to U.S. ABWR Design Certification Renewal Rule

DOCUMENT	ADAMS ACCESSION NO. / FEDERAL REGISTER CITATION
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SECY-20-0112, "Direct Final Rule—Advanced Boiling Water Reactor Design Certification Renewal (RIN 3150-AK04; NRC-2017-0090)," December 9, 2020	ML20170A520
GE-Hitachi ABWR Design Control Document Tier 1 & 2, Revision 7, October 2019 (includes correction noted, as of March 2020)	ML20093K254
GE-Hitachi Nuclear Energy, Transmittal of ABWR Standard Plant Design Certification Renewal Application Design Control Document, Revision 5, Tier 1 and Tier 2, December 7, 2010	ML110040176
GE-Hitachi ABWR Design Control Document Tier 1 & 2, Revision 5, December 7, 2010	ML110040323
Technical Report NEDO-33875, ABWR U.S. Certified Design—Aircraft Impact Assessment, Licensing Basis Information and Design Details for Key Design Features, Rev. 3 (M170049), February 2017	ML17059C523
Licensing Technical Report NEDO-33878, ABWR ECCS Suction Strainer Evaluation of Long-Term Recirculation Capability, Rev. 3 (M180068), March 2018	ML18092A306
<i>Final Safety Evaluation Report and Supplements</i>	
NUREG-1503, Supplement 2, "Final Safety Evaluation Report Related to the Certification of the Advanced Boiling Water Reactor Design," October 2020	ML20301A886
NUREG-1503, Supplement 1, "Final Safety Evaluation Report Related to the Certification of the Advanced Boiling Water Reactor Design," May 1997	ML080710134
NUREG-1503, Vols. 1 – 2, "Final Safety Evaluation Report Related to the Certification of the Advanced Boiling Water Reactor Design," July 1994	ML080670592
<i>Environmental Review</i>	
Environmental Assessment by the U.S. Nuclear Regulatory Commission Relating to Renewal of the Certification of the ABWR Standard Design, June 2021	ML21147A381
Staff Technical Analysis in Support of the Advanced Boiling Water Reactor Design Certification Renewal Environmental Assessment	ML20024D602
MFN 16-062, "Applicant's Supplemental Environmental Report – Amendment to Standard Design Certification (ABWR Renewal Docket 52-045)," August 2016	ML16235A415
25A5680AA, "Amendment to Technical Support Document for the ABWR," Sheet 1, November 30, 2010 (Renewal Application)	ML110040178
SECY-97-077, "Certification of Two Evolutionary Designs," April 15, 1996 (Original ABWR Environmental Assessment)	ML003708129
Letter from GE Nuclear Energy Submitting the Enclosed "Technical Support Document for the ABWR," December 21, 1994 (Original NEPA/SAMDA Submittal)	ML100210563

<i>Commission Papers, Original Design Certification, Interim Rule Amendments, and Other Supporting Documents</i>	
SECY-19-0066, "Staff Review of NuScale Power's Mitigation Strategy for Beyond-Design-Basis External Events," June 26, 2019	ML19148A443
SECY-12-0025, "Proposed Orders and Requests for Information in Response to Lessons Learned from Japan's March 11, 2011, Great Tohoku Earthquake and Tsunami," February 17, 2012	ML12039A111
SECY-11-0093, "Near-Term Report and Recommendations for Agency Actions Following the Events in Japan," July 12, 2011	ML11186A950
The Near-Term Task Force Review of Insights from the Fukushima Dai-Ichi Accident, July 12, 2011	ML111861807
Staff Requirements Memorandum on SECY-90-377, "Requirements for Design Certification Under 10 CFR Part 52," February 15, 1991	ML003707892
SECY-90-377, "Requirements for Design Certification under 10 CFR Part 52," November 8, 1990	ML003707889
NUREG-1948, "Final Safety Evaluation Report Related to the Aircraft Impact Amendment to the U.S. Advanced Boiling Water Reactor (ABWR) Design Certification," June 2011	ML11182A163
U.S. Advanced Boiling Water Reactor Aircraft Impact Design Certification Amendment, December 16, 2011	76 FR 78096
LBP-11-07, Atomic Safety and Licensing Board Memorandum and Order in the South Texas Project Electric Generating Station Units 3 and 4 Combined License Proceeding, February 28, 2011	ML110591049
GE Hitachi Nuclear Energy; Acceptance for Docketing of an Application for Renewal of the U.S. Advanced Boiling Water Reactor Design Certification, February 18, 2011 (Acceptance Application)	76 FR 9612
GE Hitachi Nuclear Energy; Notice of Receipt and Availability of an Application for Renewal of the U.S. Advanced Boiling Water Reactor Design Certification, January 27, 2011 (Notice of Receipt of the Application)	76 FR 4948
ABWR-LIC-09-621, Revision 0, "Applicant's Supplemental Environmental Report-Amendment to ABWR Standard Design Certification," November 2009	ML093170455
Consideration of Aircraft Impacts for New Nuclear Power Reactors, June 12, 2009	74 FR 28111
Licenses, Certifications, and Approvals for Nuclear Power Plants, August 28, 2007 (Revision of 10 CFR Parts 50 and 52)	72 FR 49351
Presidential Memorandum, "Plain Language in Government Writing," June 10, 1998	63 FR 31883
Policy Statement on Adequacy and Compatibility of Agreement States Programs, September 3, 1997	62 FR 46517

Standard Design Certification for the U.S. Advanced Boiling Water Reactor Design, May 12, 1997 (Original U.S. ABWR Design Certification)	62 FR 25800
GE-Hitachi Nuclear Energy, Transmittal of ABWR Standard Plant Design Certification Renewal Application Design Control Document Revision 7, Chapter 5, March 16, 2020	ML20076D961
GE-Hitachi Nuclear Energy – ABWR Standard Plant Design Certification Renewal Application Design Control Document Revision 7, Tier 1 and Tier 2, December 20, 2019	ML20007E274
GE-Hitachi Nuclear Energy, Submittal of ABWR Standard Plant Design Certification Renewal Application Design Control, Document, Revision 6, Tier 1 and Tier 2, February 19, 2016	ML16081A268
GE-Hitachi Nuclear Energy – ABWR Standard Plant Design Certification Renewal Application Design Control Document Revision 6, Tier 1 and Tier 2, February 19, 2016	ML16214A015
Mitigation of Beyond-Design-Basis Events (MBDBE) – Regulatory Analysis – Proposed Rule Post-SRM, October 2015	ML15266A133
Letter from Nuclear Innovation North America LLC, South Texas Project Units 3 and 4 Termination of Combined Licenses NPF-97 and NPF-98, July 12, 2018	ML18179A217
South Texas Project, Units 3 and 4, Request for Withdrawal of Combined Licenses, June 22, 2018	ML18184A338
Withdrawal of Toshiba Advanced Boiling Water Reactor Design Certification Rule Renewal Application, June 9, 2016	ML16173A310
GE-Hitachi Nuclear Energy – U.S. Advanced Boiling Water Design Certification Renewal Application, July 20, 2012	ML12125A385
Reactor Regulatory History on Design Certification Rules, April 26, 2000 ³	ML003761550
Notice of Issuance of Revised Final Design Approval for U.S. ABWR Standard Design, December 1, 1994	59 FR 61647
Letter to GE Nuclear Energy Transmitting the Revised Final Design Approval for [the] U.S. ABWR Standard Design, November 23, 1994	ML20077A747
Issuance of Final Design Approval Pursuant to 10 CFR Part 52, Appendix O; U.S. Advanced Boiling Water Reactor Design; GE Nuclear Energy, July 20, 1994	59 FR 37058
Final Design Approval FDA-0 for GE Nuclear Energy U.S. ABWR Standard Design, July 13, 1994 (Docket No. 52-001)	ML20070L506
GE Nuclear Energy; Receipt of Application for Design Certification, March 20, 1992 (Initial Application)	57 FR 9749

³ The regulatory history of the NRC's design certification reviews is a package of documents that is available in the NRC's PDR and NRC Library: Reactor Regulatory History on Design Certification Rules, April 26, 2000. This history spans the period during which the NRC simultaneously developed the regulatory standards for reviewing these designs and the form and content of the rules that certified the designs. This document predates this rulemaking and therefore does not contain a regulatory history for this rulemaking.

The NRC may post materials related to this document, including public comments, on the Federal Rulemaking Web site at <https://www.regulations.gov> under Docket ID NRC-2017-0090.

Dated: June 23, 2021.

For the Nuclear Regulatory Commission.

Annette Vietti-Cook,
Secretary of the Commission.

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